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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,247	07/12/2004	Detlev Neuland	01/090LTS	5234

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EXAMINER	
HELM, CARALYNNE E	

ART UNIT	PAPER NUMBER
1615	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/501,247	NEULAND ET AL.	
	Examiner	Art Unit	
	CARALYNNE HELM	1615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 May 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3 and 5-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 3, and 5-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

MAINTAINED REJECTIONS

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

The four factual inquiries of Graham v. John Deere Co. have been fully considered and analyzed in the rejections that follow.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 3, and 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hijiya et al. (US Patent No. 4,562,020) in view of Goldsworthy et al. (US Patent No. 4.079,106), Satchwell et al. (US PGPub No. 2003/0228196), and Wimberger et al. (previously cited).

Hijiya et al. teach the method of making an edible pullalan or elsinan film produced from an aqueous solution that also contains an active (e.g. seasoning, antibiotic, protein, fat, biologically active substance, etc.) (see column 3 lines 5-40, claims 1-2 and 10; instant claims 1, 5-6). Hijiya et al. teach that the film is made by the application of this aqueous solution to a continuous belt (carrier) made of plastic (polymer) that is then dried into a film and peeled from the belt surface (see column 32-44; instant claim 3). The belt is passed through a regeneration region before returning back to the beginning of the coating process (the post-regeneration condition is interpreted as neutralized) (see column 2 lines 42-44; instant claim 1). Repetition of this cycle, as implied by Hijiya et al., results in a regenerated (neutralized) carrier used in the coating process (see instant claim 1). Hijiya et al. do not explicitly teach the decontamination of the belt.

Goldsworthy et al. teach a process of making a polymer containing article wherein the liquid/molten form of the polymer is applied to the surface of a belt (see column 2 lines 25-28). The material is allowed to cure/dry and is then removed from the belt (see column 2 lines 39-42). Goldsworthy et al. then teach the cleaning of the belt with heat (thermal treatment) and its subsequent return to the initial portion of the

machine for use in the process again (e.g. continuous belt) (see column 2 lines 43-47; instant claim 7). Since applicant has not defined how much residual contaminant corresponds to removal of "essentially all of the contaminants", the cleaning process taught by Goldsworthy et al. is interpreted as removing "essentially all of the contaminants". Applicant teaches that neutralization occurs when a carrier is made to be essentially free of contaminants from a coating that was previously applied and removed (see instant specification page 4 lines 16-19). Therefore the cleaned carrier of Goldsworthy et al. that is fed back to the coating process is a neutralized carrier (see instant claim 1). The contamination left on the belt from the polymer melt//liquid would penetrate this carrier on at least a molecular level (e.g. since material from the polymer adheres to the belt such that it would need to be removed prior to the belt's reuse, at least one portion of a molecule of material from the polymer matrix would reach beneath/penetrate the upper most surface of the molecules constructing the belt). Although not explicitly taught by Goldsworthy et al, it is commonly known that any cleaning methodology requires the disposal of the waste material removed from the cleaned item. In the case of thermal cleaning, the waste material is, at least in part, in gaseous form.

Wimberger et al. teach a process where a paper web (carrier) is passed through a thermal treatment zone (dryer/drying tunnel) such that a surface contaminant (solvent) is removed via a thermal treatment and fed to an afterburner via a fan (controlled air circulation) (see column 1 lines 50-59, column 2 lines 66-68; instant claims 1 and 3). The temperature of the air supplied to the dryer is taught to be 350ºF±150ºF (see column 6 lines 6-7). This teaching indicates that 200ºF (93ºC) is within the envisioned

temperature range and corresponds to "approximately 80ºC" (see instant claim 1). In addition, Satchwell et al. teach that the use of low temperature thermal treatment to remove or desorb undesired materials from a matrix was known at the time of the invention (see paragraph 19). In particular, Satchwell teaches that such a process can occur at 90ºC, which is also interpreted to correspond to "approximately 80ºC".

Since the process taught by Hijiya et al., like Goldsworthy et al, applies a liquid/uncured polymer to a belt in order to dry/cure, it follows that their process would also result in residual material from the polymer construct being left behind and requires removal/cleaning. Hijiya et al. envisions regeneration (e.g. in their regeneration of the corona layer on their belt) of the belt between coating passes, thus it would have been obvious to one of ordinary skill in the art at the time of the invention to remove essentially all the contaminants from the continuous belt (creating a neutralized carrier) using thermal treatment of approximately 80ºC in a drying tunnel before being coated again. In addition, since disposal of the removed material would be required, directing the gaseous matter to an afterburner via controlled air circulation would also be obvious to one of ordinary skill in view of the teachings of Wimberger et al. Hijiya et al. in view of Goldsworthy et al, Satchwell et al., and Wimberger et al. does not explicitly teach the time for the removal of essentially all of the undesired material, however, depending upon the volatility of the contaminant, it would have been well within the purview of one of ordinary skill in the art to optimize such a parameter as a matter of routine experimentation. Therefore claims 1, 3, and 5-7 are obvious over Hijiya et al. in view of Goldsworthy et al., Satchwell et al., and Wimberger et al.

NEW REJECTIONS

Claims 1 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hijiya et al. in view of Goldsworthy et al., Satchwell et al., and Wimberger et al. as applied to claims 1, 3, and 5-7 above, and further in view of Yamanouchi et al. (US Patent No. 5,804,357).

Hijiya et al. in view of Goldsworthy et al., Satchwell et al., and Wimberger et al. make obvious the method of instant claim 1. This modified reference does not explicitly teach the thermal treatment occurs via infra red treatment.

Yamanouchi et al. teach the thermal treatment of a film via a method that is able to generate temperatures of 50 ºC, 70 ºC, 90 ºC, and higher (see column 29 lines 39-42). Yamanouchi et al. go on to teach that an infrared heater is used to supply the thermal treatment (see column 29 lines 43-44; instant claim 8).

As one of a finite number of options available to the ordinarily skilled artisan, it would have been obvious to one of ordinary skill in the art at the time of the invention to select an infrared heater to generate the thermal treatment in the method of Hijiya et al. in view of Goldsworthy et al., Satchwell et al., and Wimberger et al. Since the infrared heater of Yamanouchi et al. is able to product a thermal treatment of 90ºC (about 80 ºC), as taught by Hijiya et al. in view of Goldsworthy et al., Satchwell et al., and Wimberger et al., the ordinarily skilled artisan would have had a reasonable expectation of success for its use in the method. Therefore claims 1 and 8 are obvious over Hijiya et al. in view of Goldsworthy et al., Satchwell et al., and Wimberger et al. and Yamanouchi et al.

Response to Arguments

Applicant's arguments submitted May 5, 2009, have been fully considered but they are not deemed to be persuasive.

Throughout the arguments applicant notes elements of the claimed invention that are not taught by individual references. A rejection based upon a combination of references was presented precisely because no one reference taught all of the claimed limitations. Applicant has not argued any elements that are not taught by the full combination as cited in the rejection.

Applicant argues that Hijiya et al. do not teach that the active-ingredient containing coating cast onto a carrier penetrates and contaminates the carrier. However, in applicant's disclosure it is taught that "application of the active-agent containing coating, which in many cases is an aqueous coating composition, to the carrier material…However, during the above production process the active-ingredient and additionally used adjuvants and other components of the coating used e.g. in a pharmaceutical preparation will partly, through diffusion, penetrate into the carrier material. The carrier material will be contaminated by these substance up to the respective degrees of saturation." Thus based upon applicant's disclosure, the application of an aqueous coating to a carrier results in the carrier being contaminated due to penetration of the coating. Hijiya et al. teach coating of a carrier material with an aqueous coating composition; therefore, the carrier would necessarily have been contaminated, according to applicant's disclosure.

Applicant argues that Goldsworthy et al. do not motivate the removal of "essentially all of the contaminant" from the carrier and do not teach that their foam

penetrates the carrier. Since applicant has not defined how much contaminant constitutes "essentially all", the removal of any amount of material is interpreted to meet this limitation. Goldsworthy et al. teach the removal of residual material/contaminants from the carrier after removal of the foam coating, therefore they explicitly teach the removal of "essentially all of the contaminants". Since the carrier belt is recycled in the process, one of ordinary skill would have wanted to remove "essentially all the contaminants" so that subsequent batches of product would be consistent and free of contaminants from previous batches. As discussed above, applicant teaches that the application of a coating material to a carrier results in the penetration the active-ingredient and additionally used adjuvants and other components of the coating used into the carrier material. Since this coating procedure is employed in the invention of Goldsworthy et al., then the same mechanism of contamination must also occur. Furthermore, Goldsworthy et al. establish that it was known to clean and remove contaminating material from endless carrier belts that are used to cast products in sheet form.

While it is true that Satchwell et al. does not teach all of the claimed limitations, they do teach the removal of contaminating material from a matrix via thermal treatment which demonstrates the state of the art in material decontamination. Since Hijiya et al. teach the regeneration of their coating belt, one of ordinary skill would include decontamination within their taught regeneration since it means to make new or like new. As Goldsworthy teaches thermal treatment as a means of decontaminating a carrier belt, Satchwell et al. provide further information on the temperatures that can be used for such a process. Therefore this reference is pertinent to the invention as a

known technique to improve a similar device (carrier material) in the same way and would have been obvious to employ in the invention of Hijiya et al.

While it is true that Wimberger et al. do not teach all of the claimed limitations, they do teach the state of the art regarding what is done with contaminating material that has been removed by thermal treatment. As Goldsworthy teaches thermal treatment as a means of decontaminating (regeneration as taught by Hijiya et al.) a carrier belt, Wimberger et al. provide information on the disposal of this removed material when in gaseous form. Therefore this reference is pertinent to the invention as a known technique to improve a similar method (removal of contaminant by thermal treatment) in the same way and would have been obvious to employ in the invention of Hijiya et al. In addition, Wimberger et al. do not teach away from the use of low temperature thermal treatment by their presentation of a high temperature treatment protocol. The presentation of one option is not an explicit teaching away from another.

Contrary to applicant's assertion, the combination of references does in fact teach the feeding of the contaminating material removed by thermal treatment to an afterburner via controlled air circulation in the teachings presented by Wimberger at al. While Satchwell et al. may present other options for treatment of the removed contaminant; they are a small set of options. Since a limited set of options for disposal of this material is presented by the combined references, one of ordinary skill in the art would have been motivated to explore each of them, still resulting in an embodiment where the option of Wimberger et al. is utilized and yielding the method of the instant invention.

Rejections and/or objections not reiterated from previous office actions are hereby withdrawn. The rejections and/or objections detailed above are either reiterated or newly applied. They constitute the complete set presently being applied to the instant application.

Conclusion

No claim is allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CARALYNNE HELM whose telephone number is (571)270-3506. The examiner can normally be reached on Monday through Thursday 8-5 (EDT).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward can be reached on 571-272-8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Caralynne Helm/
Examiner, Art Unit 1615

/MP WOODWARD/
Supervisory Patent Examiner, Art Unit 1615